

3.3.4 Tourism and Recreation

1. The Service does not anticipate any severe restrictions on shoreline activity as a result of critical habitat designation. Increased conservation efforts leading to larger plover population may in fact benefit recreational visitation to such areas. There may be some increased consultation activity for certain parts of North Carolina and Florida pertaining to tourism and recreational activities, but these costs have been internalized within the analysis presented in Exhibit 3-2. Since the piping plover was listed in 1985, no beach closures have occurred due to the presence of piping plovers in their wintering range, although in the breeding range partial beach closures have occurred to protect chicks and adult plovers prior to the chicks fledging. The Service believes that normal human presence on piping plovers in their wintering habitat does not have serious consequences at the population level, and thus does not expect the designation of critical habitat to affect recreational beach use.
1. A 1998 study of the effects of recovery efforts for the Atlantic population of piping plover found that impacts on recreational activities as a result of recovery efforts for the piping plover depend on five factors: the extent of limitations imposed by the facility (usually beach management offices), the availability of substitutes within the local economic region, the popularity of the beach environment, the size and growth of the local economy, and local businesses' ability to adapt to changes in demand. The study found that regional effects of recovery efforts varied from negligible to economically significant, but that the most important controlling factor was the extent of limitations imposed. Limitations observed in the study varied from restricting access to dune areas and bayside flats to total beach closures. In three of four case studies of areas that restricted but did not prohibit access to beach habitats, no discernable reduction in beach visitation was observed.¹ It is important to note that beach closures have never occurred due to conservation measures for the plover's wintering habitat since the species was listed as threatened. The Service does not anticipate any change in conservation measures in this regard.

3.3.5 Oil and Gas Exploration

1. Several commenters expressed concerns about the impact of critical habitat designation on the oil and gas industry that is expected to show renewed growth in the coming decade. BNP Petroleum submitted a detailed economic analysis in which one of the scenarios focused on oil and gas production prospects in the Laguna Madre environs in Southern Texas.
1. BNP estimates the natural gas reserves from its South Padre Island projects to be

¹ Unsworth et al. *An Economic Analysis of Piping Plover Recovery Activities on the Atlantic Coast*. Prepared for the U.S. Fish and Wildlife Service, Division of Economics, Arlington, VA, 1998.

approximately 1.7 trillion cubic feet.² At the market price of about \$4.00 per mcf, this reserve is worth about \$6.8 billion. The BNP study goes on to estimate economic impacts to producers, the region, consumers, and government entities. The most significant of these are impacts associated with oil and gas development activities. The BNP sponsored analysis is premised on several assertions. The first of these is that much of the proposed designation in Texas is unoccupied, and thus any future consultations and required modifications would be the result of the designation. The Service has questioned this assertion. The second is that all oil and gas development on Laguna Madre will be delayed from six months to two years as a result of critical habitat. No evidence is presented to support this assertion.

1. It is important to note that no oil exploration activity has been delayed by any consultations pertaining to the piping plover since the species was listed as threatened in 1988. Although the permitting process for oil and gas exploration and production activities is complex and involves a myriad of Federal, State and local requirements, by law, a formal consultation must be completed within 165 days. In addition, even assuming the designation leads to additional consultations, it is unclear as to why activities forecast to occur a number of years after the designation would experience delays. That is, for activities expected three to five years out or more, any required consultation could be undertaken in the near term, as part of any normal project planning and permitting. Considering the extraordinary expected revenue streams forecast to result from development of this well field (i.e., in excess of \$1 billion), it would appear that the developers of these well fields will have sufficient incentives to complete all required permitting activities in a timely manner. An informal consultation has already been conducted with regard to the Western Geo-physical seismic surveys in the Laguna Madre and adjacent areas and minor mitigation measures were carried out to reduce impact to mudflats.
1. As noted above, the BNP analysis projects future natural gas production for Laguna Madre, and then estimates the cost of six month to two-year delays in the assumed development. In addition to potentially overstating the likelihood of possible project delays, especially in the long term, the estimates presented are based on a number of assumptions that likely overstate potential impacts. For example, the analysis appears to assume constant product prices. Even assuming that the projected delays are realized, under conditions of rising natural gas prices, a delay might in fact benefit producers, the regional economy, and consumers. The analysis also appears to assume that all of these activities take place within critical habitat, and thus will be affected by critical habitat. Overall, while the author of the BNP study characterizes the estimated impacts presented in that report as "certainly conservative [i.e., low]," the estimates presented appear to be seriously overstated (i.e., by orders of magnitude).
1. Oil and gas production projects in the Laguna Madre as well as on upland areas are not likely to result in further consultations since the installation of gathering equipment is performed underground, and transport of materials are made through an extensive system of transfer facilities

² Based on 3-D Seismic Imaging Technology.

from the operator to the refinery. Furthermore, directional drilling technology and currently-used Clean Water Act permitting procedures (part of the baseline) have greatly reduced the need for oil and gas drilling facilities to be situated on Texas beaches or tidal passes. If there are changes in the scope of work above and beyond these contingencies, the action agency (FERC) or their representative would reinstitute informal consultations, with a decision coming within thirty days.³

3.3.6 Waterway Operations

1. The Texas Waterway Operators Association have also expressed concerns that a change in timing of dredging activity would affect their business and lead to a shift of cargo movement from barges to trucks. The waterway operators claim that such a shift would also have serious environmental consequences since freight movement by barge results in 95 percent less emissions of nitrogen oxides. Furthermore, the commenters cite a study conducted by the Tennessee Valley Authority which estimated cost savings of over \$1.9 billion to shippers and consumers in 1997 due to the usage of barge traffic versus road transport in Texas.⁴ The Service asserts that critical habitat designation will not disrupt waterway traffic in any way, since the existing baseline rules on waterway traffic associated with speed, contaminants and safety would be sufficient to address any concerns pertaining to the plover. Consultations involving dredging would be undertaken to ensure that waterway traffic is not disrupted.

3.4 ADDITIONAL IMPACTS DUE TO CRITICAL HABITAT

3.4.1 Potential Impacts on Small Businesses

1. Under the Regulatory Flexibility Act (as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996) whenever a Federal agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions).⁵ However, no regulatory flexibility analysis is required if the head of an agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended the Regulatory Flexibility Act to require Federal agencies to provide a statement of the factual basis for certifying

³ Personal communication, wildlife biologist, U.S. Fish and Wildlife Service, Clear Lake TX, field office.

⁴ Tennessee Valley Authority, Navigation Program, web site: <http://www.tva.gov/river/navigation/economic.htm>

⁵ 5 U.S.C. 601 et seq.

that a rule will not have a significant economic impact on a substantial number of small entities. This section addresses the potential impacts to small entities and communities located within the proposed critical habitat designation.

1. This rule is not expected to have a significant economic impact on a substantial number of small entities because it imposes very little, if any, additional impacts on land use activities beyond those that may be required as a result of the listing of the piping plover. Because the piping plover is a Federally protected species, landowners prohibited from taking the species, which is defined under the ESA to include such activities that would harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. As a result, any future consultations with The Service are likely to occur to avoid any such activities that would result in an incidental take of the piping plover. Therefore, proposed modifications to such activities recommended by The Service would be attributable to the presence of the piping plover on a landowner's property and not due to the presence of critical habitat.
1. In addition, the cost estimates per consultation are largely borne by the Federal agency involved in the consultation (Exhibit 3-2). The only project modifications which have a likelihood of affecting small businesses pertain to housing and commercial development. Here too, the substitutability of land for development precludes any significant impact which some commenters have predicted.⁶
1. Dredging contractors for the Corps, who may be small businesses in certain areas, are unlikely to be affected by critical habitat designation, since none of the project modifications would involve a cessation of dredging activity. Rather, such contractors may in fact benefit from the critical habitat designation, under a scenario in which the Corps may require more hours of their labor in moving dredge spoils and related activities.
1. Recreational businesses in North Carolina voiced concerns about the impact of beach closures on their businesses. As noted in Section 3.3.4, no beach closures have occurred since the listing of the plover and none are expected to occur since ongoing recreational beach activity, within the bounds of baseline regulations, has limited impact on plover habitat. Hence, this class of businesses is unlikely to be impacted by critical habitat designation.
1. Among the public comments received for the plover from development interests, only Pointe San Luis of Galveston Island, Texas, identified themselves as a small business. Under a worst case scenario for impact on this particular development of \$3.2 million (over ten years), the

⁶ The Office of Advocacy of the Small Business Administration has expressed such concerns in a recent letter to the Director of the Service (dated September, 28, 2000). http://www.sba.gov/advo/laws/comments/doi00_0928.html

impact would still be less than 1% of the revenues generated by the venture of over \$370 million.⁷ As this example shows, the impact on small businesses is likely to be minimal under worst case scenarios and hence a more detailed regulatory impact analysis is not necessary for the Director to certify compliance with the SBREFA.

3.4.2 Environmental Justice Concerns

1. Executive Order 12898 states that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations."
1. To determine whether the designation of critical habitat imposes a disproportionate burden on minority or low income populations, three aspects need to be considered: (1) the methodology used to designate critical habitat, (2) the demographics of the counties containing designated land and (3) the costs incurred due to the designation.
1. According to the ESA, the land designated as critical habitat must contain "those physical or biological features essential to the conservation of the species and which may require special management considerations or protection; and [may include] specific areas outside the geographical area occupied by the species at the time it is listed."⁸ The designation is based solely on the biology and the physical characteristics of the land and does not take into account demographic characteristics.
1. The land designated as critical habitat constitutes 57 counties in eight states. Comparing the demographics of the state as a whole to the counties containing designated land can be used to determine whether the designation is disproportionately affecting minority and low income populations. The two comparative statistics used are the percent minority and the percent of persons below the poverty level.⁹ Exhibit 3-6 lists the 21 counties that had either a higher minority population or more persons living below the poverty level than the state

⁷ Pointe San Luis, comment letter on critical habitat designation for the piping plover, wintering habitat, November 21, 2000.

⁸ U.S. Endangered Species Act, 1973. Section 1.

⁹The source of the data is <http://www.fedstats.gov/>. The percent minority is treated here as the sum of the percent Black population, percent Asian or Pacific Islander population, percent American Indian, Eskimo and Aleut population and percent Hispanic population.

average.¹⁰ Less than half of the counties containing land designated critical habitat have larger minority or low income populations relative to the state totals.

Exhibit 3-6 LIST OF COUNTIES WITH MINORITY POPULATION AND / OR POVERTY LEVEL GREATER THAN THE STATE AVERAGE			
State	County	Minority (%)	Below Poverty Level (%)
Texas	State Average	45.9	16.7
	Aransas	32.2	22.7
	Calhoun	49.4	18.1
	San Patricio	60.5	23.1
	Nueces	65.8	21.5
	Kleberg	73.3	25.5
	Kennedy	81.7	20.1
	Cameron	86.6	35.3
	Willacy	88.1	39.7
North Carolina	State Average	27	12.6
	Onslow	33.4	14.6
	Pender	34.4	15
	Hyde	38.5	24.8
South Carolina	State Average	32.3	13.9
	Charleston	39.3	16.8
	Georgetown	43.8	18.6
	Colleton	47	22.6
Georgia	State Average	34.1	14.7
	Chatham	47.8	19
	McIntosh	50.8	22.2
	Liberty	57.7	18.8
Florida	State Average	33.1	14.4
	Franklin	18.1	19
	Taylor	27.5	22

¹⁰ Counties within three percentage points of the state average, for both parameters are not listed because they are statistically insignificant.

	Gulf	28.6	19.8
Alabama	State Average	28	16.2
	Mobile	36	20.1
Source: http://www.fedstats.gov All data is from 1997			

3.5 POTENTIAL BENEFITS OF PROPOSED CRITICAL HABITAT

1. To determine the incremental benefits of the critical habitat designation, this report aims to consider those categories of benefit that will be enhanced as a result of the proposed critical habitat designation.
1. The primary goal of listing a species as endangered or threatened is to preserve the species from extinction. However, various economic benefits, measured in terms of regional economic performance and enhanced national social welfare, result from species preservation as well. Regional economic benefits can be expressed in terms of jobs created, regional sector revenues, and overall economic activity. For example, the presence of a species may result in a successful local eco-tourism operation. National social welfare values reflect both use and non-use (i.e., existence) values, and can reflect various categories of value. For example, use values might include the opportunity to see a plover, or the recreational use of habitat area preserved as a result of the plover. Existence values are not derived from direct use of the species, but instead reflect the satisfaction and utility people derive from the knowledge that a species exists.
1. The following examples represent potential benefits derived from the listing of the plover and, potentially, critical habitat:
 - C Ecosystem health.** Plovers are part of a natural functioning wetlands ecosystem. In the absence of plovers in the ecosystem, other natural organisms may suffer. Actions to protect the plover may benefit other organisms. These organisms may provide some level of direct or indirect benefit to people.
 - C Real estate value effects.** Real estate values may be enhanced by critical habitat designation. For example, such enhancement may occur if open space is preserved or if allowable densities are reduced or kept at current levels as a result of critical habitat designation.
 - C Flood control.** Preserving natural environments can also reduce FEMA and county expenditure on bank stabilization and other flood control programs.
1. Designation of critical habitat may provide all of these benefits, but only to the extent

that critical habitat is expected to result in additional consultations and project modifications, above those required due to listing. However, it is difficult at this time to estimate the total benefit afforded by critical habitat, since too little is known about (1) the likely benefits of each consultation and modification, and (2) the extent to which such modifications would result from critical habitat.